



STATE OF MARYLAND

DMMH

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March 30, 2012

Public Health & Emergency Preparedness Bulletin: # 2012:12 Reporting for the week ending 03/24/12 (MMWR Week #12)

CURRENT HOMELAND SECURITY THREAT LEVELS

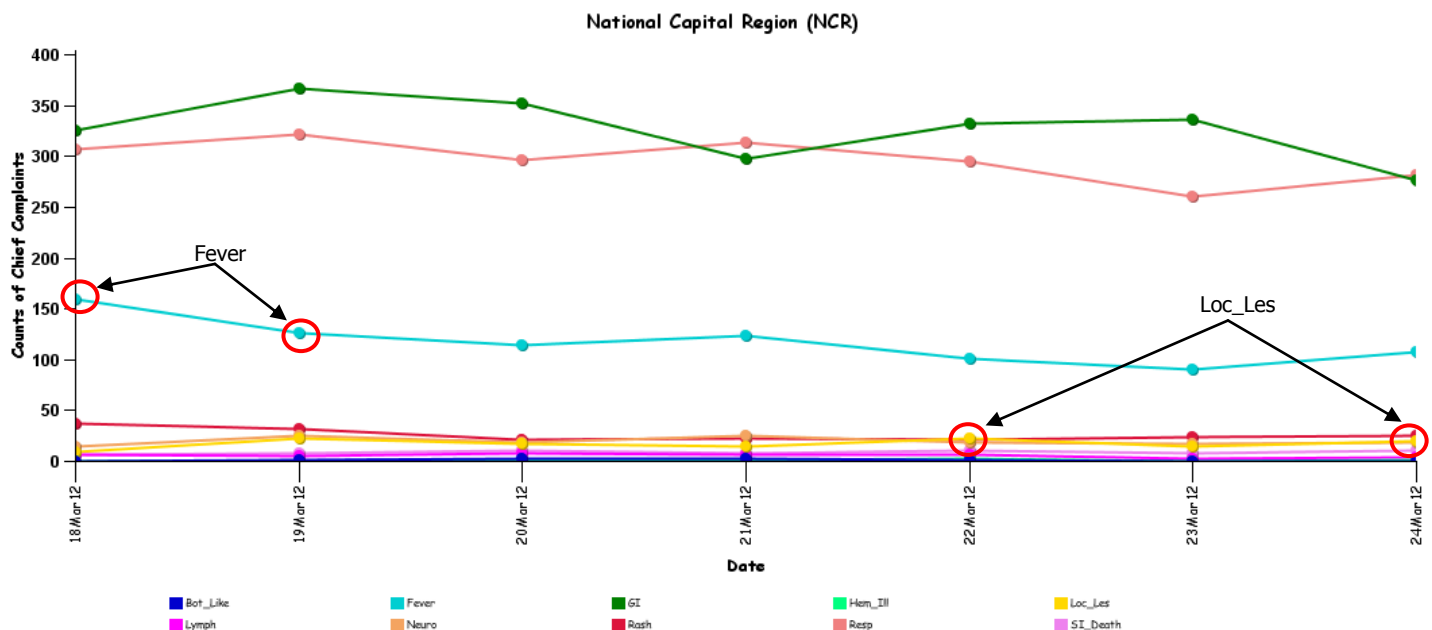
National: No Active Alerts
Maryland: Level One (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

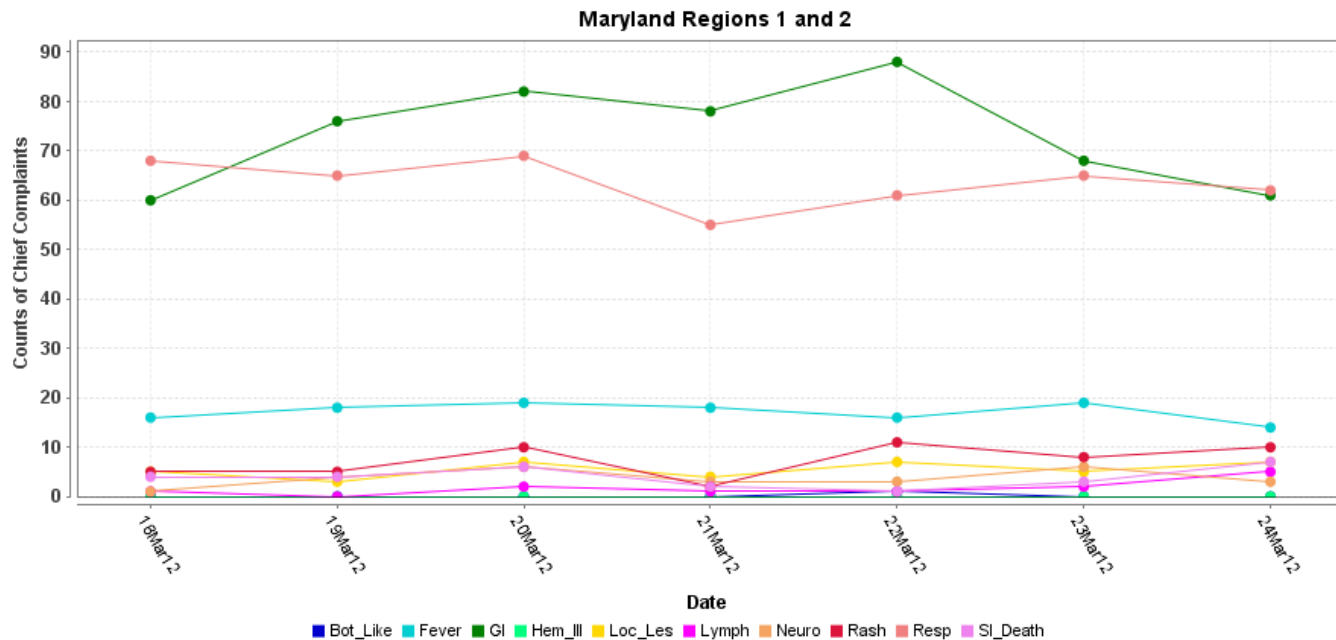
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

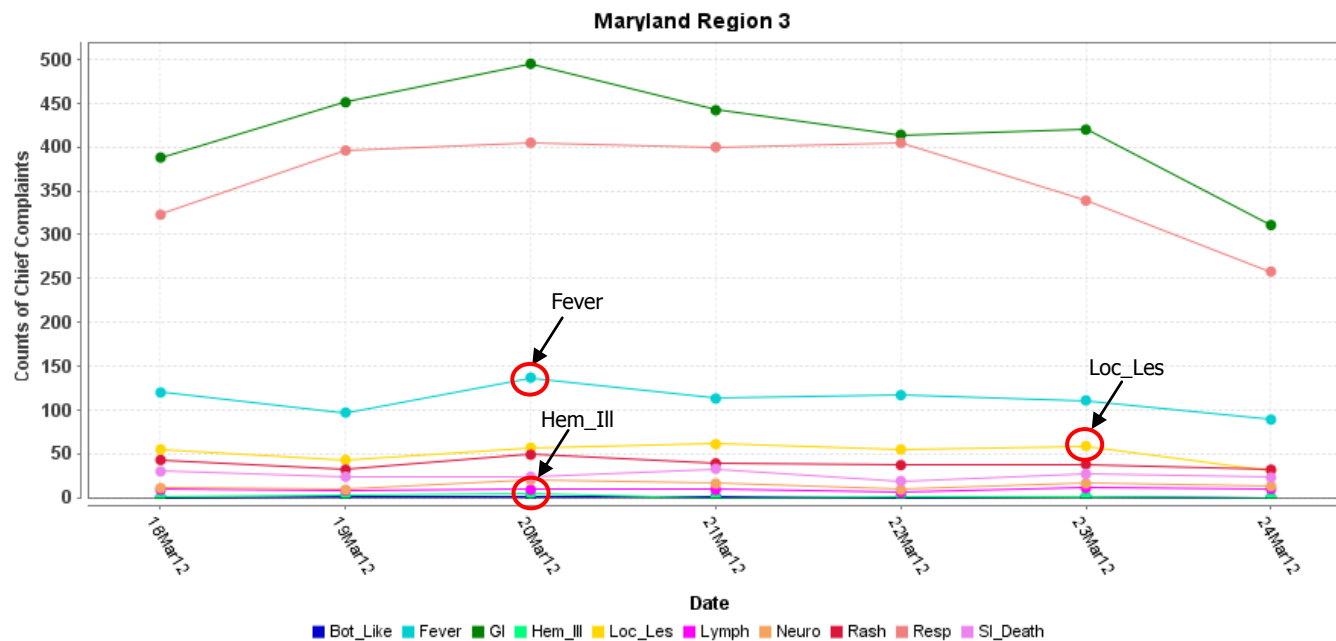


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

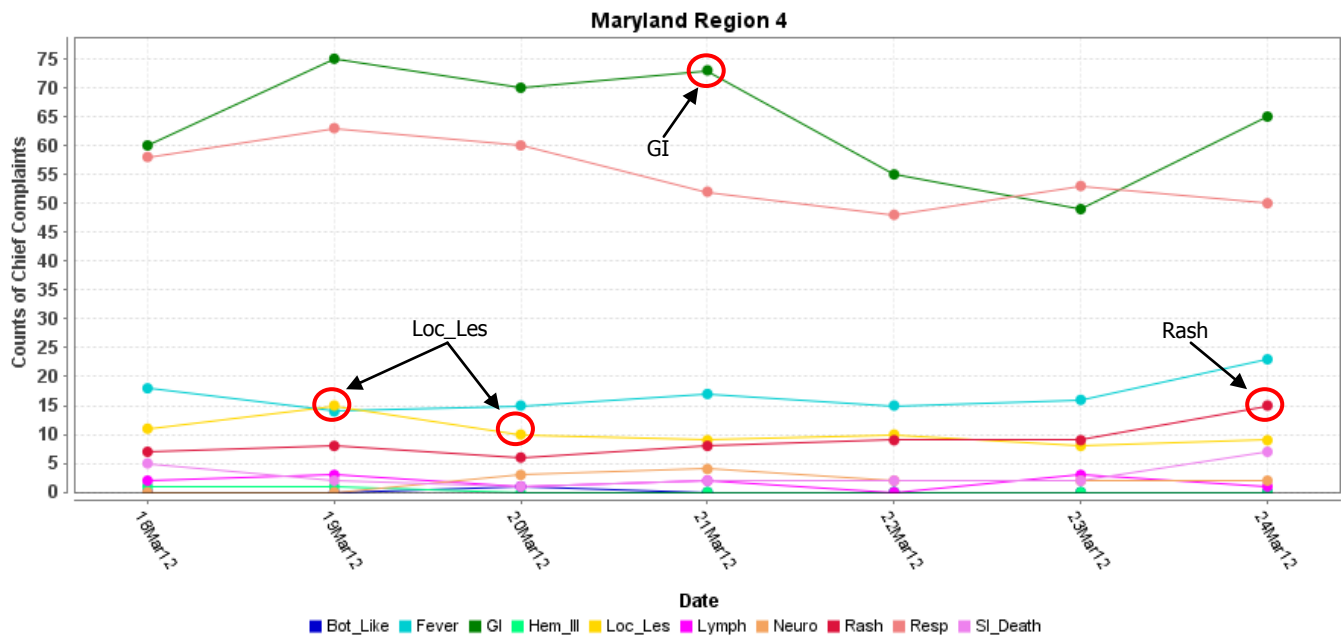
MARYLAND ESSENCE:



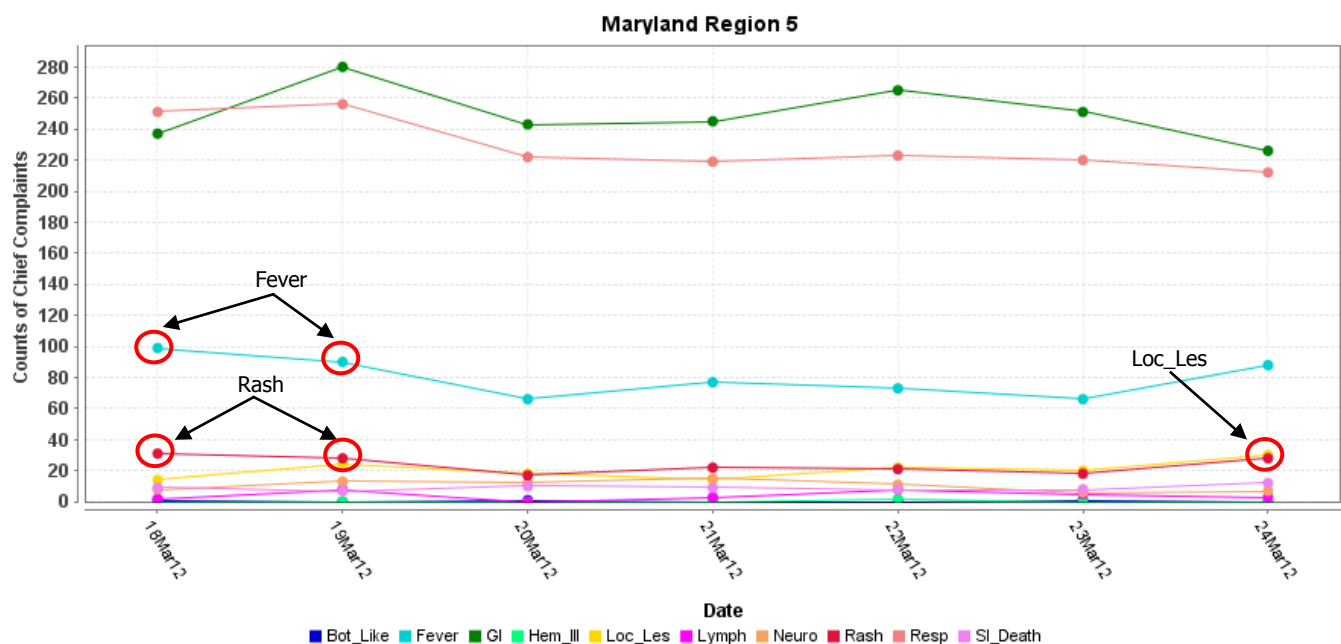
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

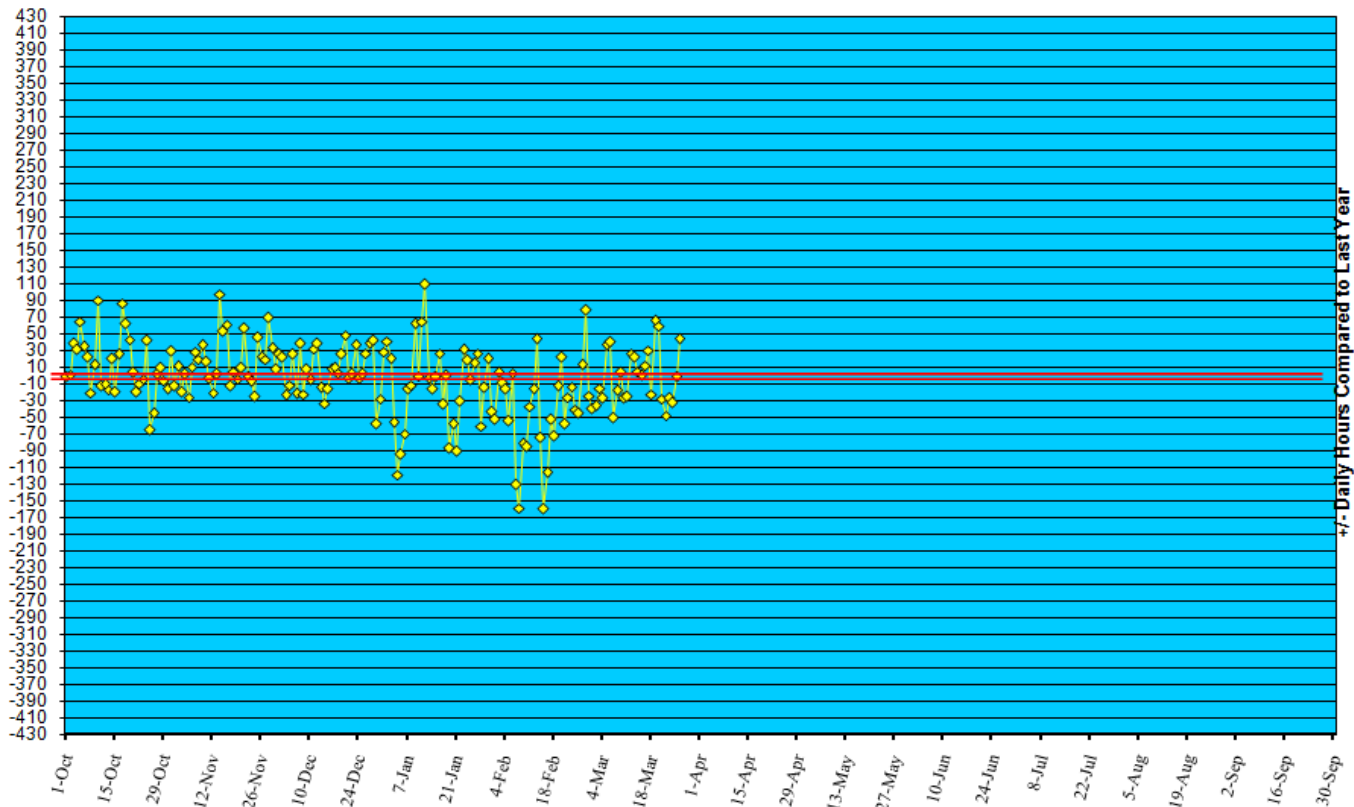


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '11 to March 24, '12



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:

New cases (March 18 – March 24, 2012):

Prior week (March 11 – March 17, 2012):

Week#12, 2011 (March 19 – March 25, 2011):

Aseptic

7

7

8

Meningococcal

0

0

0

9 outbreaks were reported to DHMH during MMWR Week 12 (March 18 – March 24, 2012)

6 Gastroenteritis outbreaks

3 outbreaks of GASTROENTERITIS in Nursing Homes

2 outbreaks of GASTROENTERITIS in Assisted Living Facilities

1 outbreak of GASTROENTERITIS in a Day Care Center

2 Foodborne outbreaks

2 outbreaks of GASTROENTERITIS/FOODBORNE associated with Restaurants

1 Respiratory illness outbreak

1 outbreak of LEGIONELLOSIS associated with an Assisted Living Facility

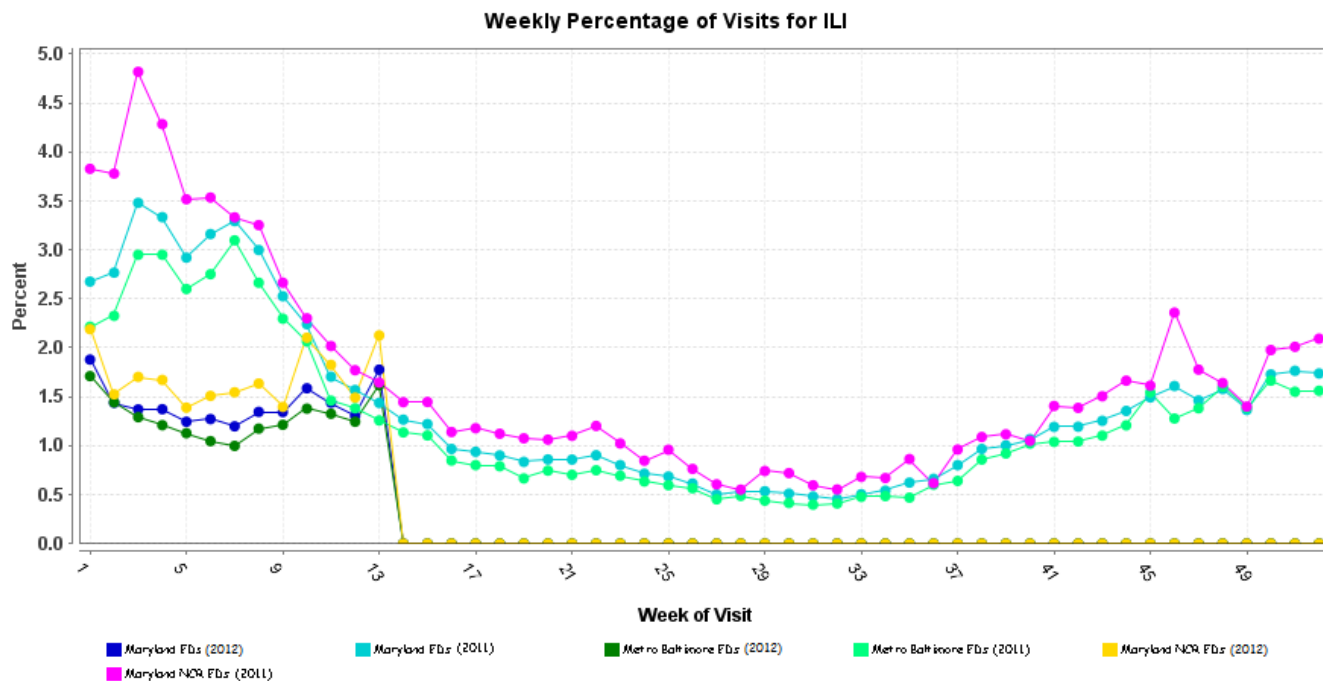
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 12 was: Local Spread Activity, Minimal Intensity.

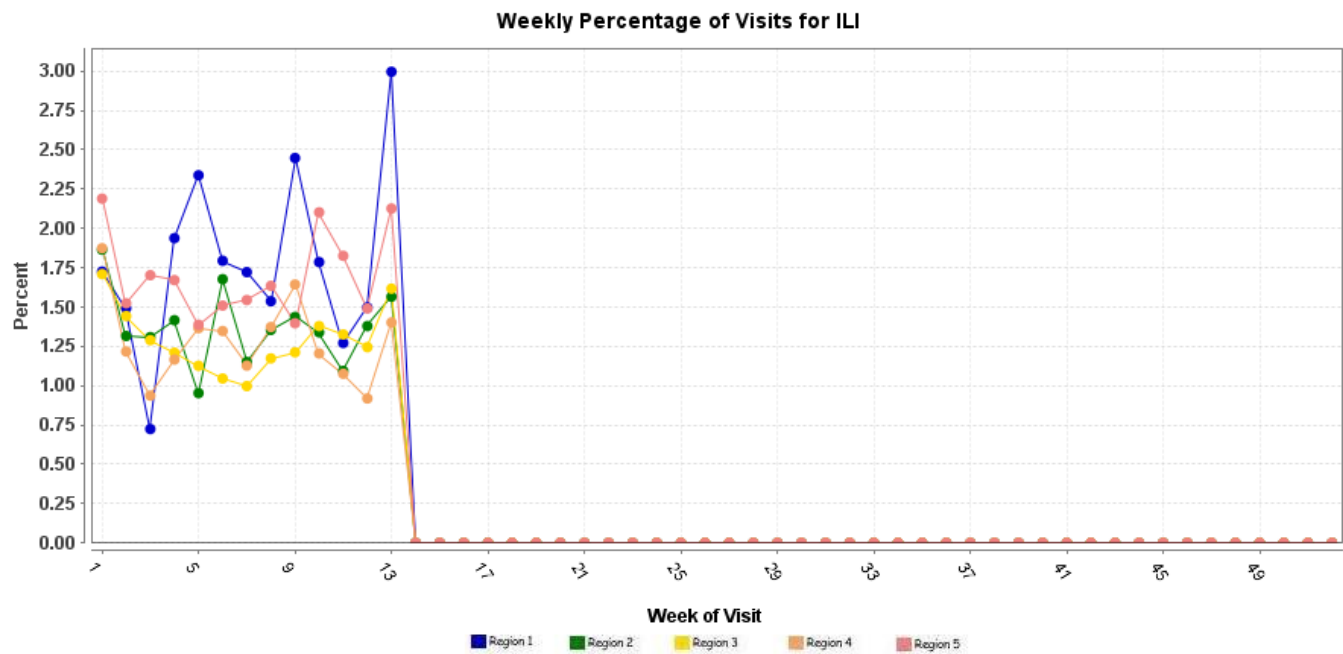
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



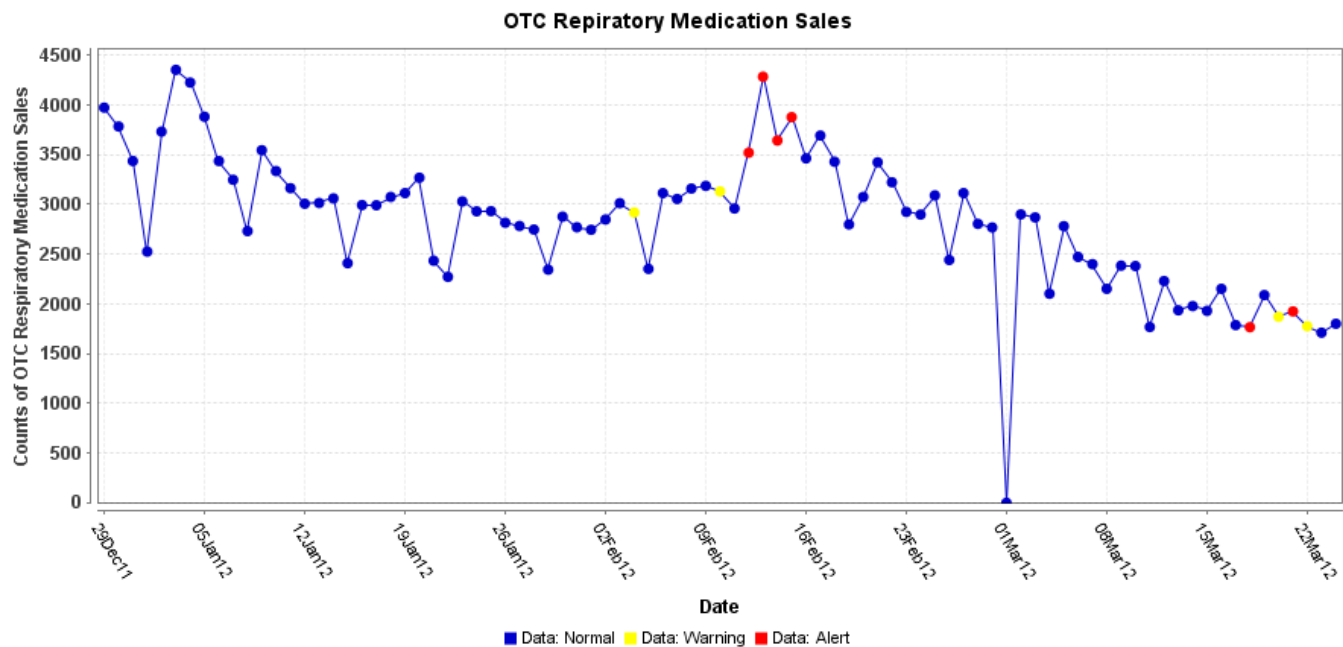
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of March 19, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 597, of which 351 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (NETHERLANDS): 19 March 2012, As of 19 Mar 2012 the Ministry of Health and Population of Egypt has notified WHO of a new case of human infection with avian influenza A (H5N1) virus. The case is a 40-year-old female from Dakahlia Governorate. She developed symptoms on 6 Mar 2012 and was hospitalised on 12 Mar 2012. She was in critical condition and received oseltamivir upon admission. She died on 15 Mar 2012. The case was laboratory confirmed by the Central Public Health Laboratories (NIC). Investigations into the source of infection indicate that the case had exposure to sick backyard poultry. Of the 164 cases confirmed to date in Egypt, 58 have been fatal.

NATIONAL DISEASE REPORTS

CAMPYLOBACTERIOSIS (CALIFORNIA): 23 March 2012, Raw milk, raw nonfat milk and raw cream produced by Claravale Farm of San Benito County is the subject of a statewide recall and quarantine order announced today, 23 Mar 2012, by California State Veterinarian Dr. Annette Whiteford. The quarantine order came following the confirmed detection of *Campylobacter* bacteria in raw cream. Consumers are strongly urged to dispose of any product remaining in their refrigerators with code dates of "MAR 27" and earlier, and retailers are to pull those products immediately from their shelves. On 19 Mar 2012, Claravale Farm voluntarily ceased distribution of its products after the California Department of Food and Agriculture made a preliminary positive finding of *Campylobacter* in raw cream. The stoppage of distribution included goat milk, as well. No illnesses have been definitively attributed to the products at this time. However, the California Department of Public Health is conducting an epidemiological investigation of reported clusters of campylobacteriosis illness where consumption of raw milk products may have occurred. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

CAMPYLOBACTERIOSIS (KANSAS): 18 March 2012, The Kansas Department of Agriculture and Kansas Department of Health and Environment [KDHE] are warning consumers and producers about the risks associated with consuming unpasteurized milk, often called raw milk. Since 2007, there have been 3 outbreaks of disease associated with consumption of raw milk in Kansas. Recently, reported in January 2012, 18 people became ill in an outbreak of campylobacteriosis associated with consumption of raw milk from a dairy in south central Kansas. In October 2007, 68 people became ill due to consuming cheese made from raw milk at a Kansas community celebration. Laboratory tests confirmed the cause of this outbreak to be campylobacteriosis, an intestinal bacterial infection. In a separate outbreak in 2007, unpasteurized milk purchased from a single dairy was also implicated as the source of illness for 25 persons due to campylobacteriosis. A study by the Centers for Disease Control and Prevention (CDC) published in February 2012 indicated that when weighted for consumption the rate of outbreaks caused by raw milk and products made from it may be 150 times greater than outbreaks linked to pasteurized milk. Pasteurization is the process of heating milk to slow microbial growth. In Kansas, it is illegal to sell raw milk in a retail setting. While dairy producers can legally sell raw milk on farms directly to consumers, the practice is not recommended. "Consuming raw milk is an unnecessary risk," said Kansas Department of Agriculture Dairy Inspection Program Manager George Blush. "You cannot tell if milk is safe by just looking at, smelling, or tasting it. Even milk from the cleanest dairies can pose risk without the pasteurization safeguard." The department's dairy inspections start at the farm and continue as the milk and milk products are transported, processed, distributed, and sold. The goal is to provide a safe, wholesome milk supply for Kansans and consumers in other states. Providing or consuming raw milk runs contradictory to this goal. The CDC study reviewed dairy product outbreaks from 1993 to 2006 in all 50 states. Outbreaks of diseases linked to raw milk products were more frequent and more severe in people younger than age 20. The rate of hospitalizations was 13 times higher in outbreaks associated with unpasteurized products compared to those associated with products that were pasteurized. Raw milk can contain harmful bacteria and other germs that can cause diarrhea, vomiting, and abdominal cramping. In severe cases, consuming raw milk can cause life-threatening diseases and even death. KDHE Secretary and State Health Officer Robert Moser, MD, said if individuals have consumed raw milk purchased directly from a farm or eaten dairy products made with raw milk and develop signs and symptoms of illness, they should consult their physician. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

BRUCELLOSIS (CHILE): 19 March 2012, The Regional Ministerial Secretariat reported that the Public Health Institute (ISP) confirmed a case of human brucellosis in La Araucania. The case is that of a 44-year-old man, living in Temuco, who in October 2011 consulted the health services for headaches. Over the following months he developed various symptoms such as fever, profuse sweating, chills, abdominal pain, and weight loss. He was admitted to the Hospital Dr Hernan Enriquez Aravena, Temuco after the diagnosis of brucellosis was made. Dr Claudio Armstrong, deputy health authority, detailed that the affected man "is an employee of a meat processing plant in the region. The bacterial strain *Brucella abortus* (a bacterium transmitted mainly from cattle) was isolated by the ISP so we have the definitive diagnosis and the infection was most likely acquired within the meat processing plant." This is the 2nd case detected in the region in 5 years. The last fatality from brucellosis occurred in 1990. According to statistics from the Health Service, in all of Chile 16 cases were reported in 2009 and 4 in 2010. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents)

*Non-suspect case

TRICHINELLOSIS (CHILE): 23 March 2012, A total of 9 persons in Caguach and Achao communities may be affected by the parasitic disease known as trichinellosis, after an investigation performed by health authorities found 9 cases confirmed in Chiloe by the Public Health Institute (ISP, according to its Spanish initials) and with 6 more suspected cases. The health institution started performing inspections and sanitary education campaigns. The information was given by Dr. Christian Araneda, Head of Health Authorities in Chiloe, who explained that in Caguach Island 8 persons had a confirmed trichinellosis infection, after one person (illegally) killed a pig and sold the meat to some of his neighbors. "Until now there are no suspicious cases in Caguach and one person is receiving therapy. All of them are in a good condition," Dr. Araneda added. The health care officer also added that in Achao there is one confirmed case of trichinellosis, and there are 3 persons considered as suspicious cases, presumably because of having eaten pork from an illegal slaughterhouse. It was also reported that in Castro city there are 3 additional suspicious cases. After the outbreak was reported, Dr. Araneda explained that some measures had been taken. These consist in monitoring the clinical condition of affected persons and performing inspections to butcher shops during next weekend in the affected communities. Also, we will deliver educational lectures using specially designed material, aiming to prevent the occurrence of new cases of trichinellosis", he said. Dr. Araneda also reminded that in Quellon community, in January 2011, an outbreak of trichinellosis occurred due to eating pork from an illegal slaughterhouse. This is the reason why preventive measures are being enforced in order to halt the dissemination of this parasitic disease, which is caused by a small worm that belongs to *Trichinella* genus. Humans acquire the infection by eating pork contaminated with larvae from the parasite, and gastrointestinal symptoms (diarrhea), muscle and joint pain are some of the main symptoms. When the infection fully develops in humans, cardiac involvement, pneumonitis and, less frequently, encephalitis are the main causes of death with this otherwise non-curable disease. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLOSIS (CANADA): 24 March 2012, Lab tests indicate that an outbreak of salmonellosis that has sickened 46 children likely came from food served by a lunch caterer that primarily serves schools, according to the city's health department. Samples of frozen ground beef and raw chicken taken from a kitchen belonging to a Lunch Lady franchise on Boyd Avenue tested positive for the same bacterium detected in the children and 4 adults who've been sick enough to seek medical attention in the last 2 weeks, the department said in a Friday evening, 23 Mar 2012, statement. "The results further point to a link between the outbreak and the ground beef prepared at the caterer, but additional testing is still underway," the statement said. The beef was tainted with *Salmonella enterica* serotype Typhimurium and the chicken with *S. enterica* serotype Heidelberg, it said, 2 of the many types of the bacterium. The department's investigation has pointed particularly to Lunch Lady meat lasagna and beef tacos as foods eaten by people who later got sick. The bacterium can be rendered harmless if food is cooked to a high enough temperature. The challenge now is to determine whether the meat was contaminated when it arrived at the kitchen or became tainted while Lunch Lady workers handled it. The health department "is in communication with the Provincial and Federal Health and Food Safety authorities to assist in the ongoing investigation and response," the statement said. 50 people (46 children and four adults) became sick in cases believed to be connected to this outbreak, which the department revealed at the beginning of last week. Known cases have been found in about a dozen elementary schools, a Kanata daycare, and at Merivale High School. In the high school case, an older sibling likely caught the bug from a younger one. To prevent more secondary infections, the health department urges Ottawans to be careful about hygiene, especially when preparing food. The health department also added 3 more schools to the list of institutions where related cases have been identified: Featherston Drive Public School in Alta Vista, First Avenue Public School in the Glebe, and Holy Redeemer School in Kanata. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website:
<http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmh.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	<p>ACUTE condition that may represent exposure to botulinum toxin</p> <p>ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy.</p> <p>ACUTE descending motor paralysis (including muscles of respiration)</p> <p>ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.</p>	Botulism
Hemorrhagic Illness	<p>SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola</p> <p>ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF</p> <p>ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria</p>	VHF
Lymphadenitis	<p>ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)</p>	Plague (Bubonic)
Localized Cutaneous Lesion	<p>SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia</p> <p>ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia</p> <p>INCLUDES insect bites</p> <p>EXCLUDES any lesion disseminated over the body or generalized rash</p> <p>EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease</p>	<p>Anthrax (cutaneous)</p> <p>Tularemia</p>
Gastrointestinal	<p>ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract</p> <p>SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis</p> <p>ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea</p> <p>EXCLUDES any chronic conditions such as inflammatory bowel syndrome</p>	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	<p>ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media)</p> <p>SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus</p> <p>ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis</p> <p>ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain</p> <p>EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE <i>acute exacerbation</i> of chronic illnesses.)</p>	<p>Anthrax (inhalational)</p> <p>Tularemia</p> <p>Plague (pneumonic)</p>
Neurological	<p>ACUTE neurological infection of the central nervous system (CNS)</p> <p>SPECIFIC diagnosis of acute CNS infection such as pneumococcal meningitis, viral encephalitis</p> <p>ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephalitis NOS, encephalopathy NOS</p> <p>ACUTE non-specific symptoms of CNS infection such as meningismus, delirium</p> <p>EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's</p>	Not applicable
Rash	<p>ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs)</p> <p>SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox</p> <p>ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem</p> <p>EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheic dermatitis, rosacea</p> <p>EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema</p>	Smallpox
Specific Infection	<p>ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal)</p> <p>INCLUDES septicemia from known bacteria</p> <p>INCLUDES other febrile illnesses such as scarlet fever</p>	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	<p>ACUTE potentially febrile illness of origin not specified</p> <p>INCLUDES fever and septicemia not otherwise specified</p> <p>INCLUDES unspecified viral illness even though unknown if fever is present</p> <p>EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome</p>	Not applicable
Severe Illness or Death potentially due to infectious disease	<p>ACUTE onset of shock or coma from potentially infectious causes</p> <p>EXCLUDES shock from trauma</p> <p>INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births</p> <p>EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths</p>	Not applicable